

In the Claims:

Please cancel claims 1-87, and please amend claims 115-123 as follows.

1-87. (Canceled)

88. (Original) A method for coupling a flowable conductive material to a microelectronic device, comprising:

aligning a support member to receive the flowable conductive material, the support member having a support surface configured to carry a microelectronic substrate, the support member further having a first connection structure and a second connection structure, the first connection structure being configured to remain decoupled from a microelectronic substrate when the support member carries the microelectronic substrate, the first connection structure having a first bond site configured to receive the flowable conductive material, the second connection structure having a second bond site configured to receive the flowable conductive material, the second connection structure being configured to be electrically coupled to the microelectronic substrate when the support member carries the microelectronic substrate;

disposing a first quantity of the flowable conductive material on the first bond site;

wicking a first portion of the first quantity of flowable conductive material along first elongated members connected to and extending outwardly from the first bond site;

disposing a second quantity of the flowable conductive material on the second bond site; and

wicking a second portion of the second quantity of flowable conductive material along second elongated members extending outwardly from the second bond site, with the second portion of the flowable conductive material having a volume approximately equal to a volume of the first portion.

89. (Original) The method of claim 88 wherein wicking the first portion includes wicking the first portion along a first number of first elongated members, and wherein wicking the second portion includes wicking the second portion along a second number of second elongated members, with the first number equal to the second number.

90. (Original) The method of claim 88, further comprising:
attaching a microelectronic substrate to the support member;
electrically coupling the microelectronic substrate to the second connection structure; and
testing the microelectronic substrate by contacting a test fixture with the flowable conductive material on the first and second connection structures.

91. (Original) The method of claim 88, further comprising selecting the second connection structure to include a third bond site configured to be wire bonded to the microelectronic substrate when the microelectronic substrate is carried by the support member, and wherein at least one of the second elongated members extends between the second and third bond sites.

92. (Original) The method of claim 88 wherein wicking the first portion of flowable conductive material includes wicking the first portion along two first elongated members extending away from opposite sides of the first bond site.

93. (Original) The method of claim 88, further comprising:
disposing a layer on the support member and on the first and second elongated members; and
aligning a first aperture of the layer with the first bond site and aligning a second aperture of the layer with the second bond site.

94. (Original) The method of claim 88, further comprising disposing a layer on the support member and over the first and second elongated members with a first aperture of the layer aligned with the first bond site and a second aperture of the layer aligned with the second bond site, further wherein a covered portion of each first and second elongated member extends between the layer and the support member, and an exposed portion of each elongated member is exposed through one of the first and second apertures, still further wherein each exposed portion has approximately the same length.

95. (Original) The method of claim 88 wherein the first bond site includes a solder pad having a diameter of about 330 microns and wherein at least one of the first elongated members has a length of about 250 microns, and wherein the method further comprises disposing a solder mask over the first and second elongated members with a first aperture of the solder mask aligned with the first bond site and a second aperture aligned with the second bond site, and with a covered portion of the at least one first elongated member extending beneath the solder mask for a distance of about 200 microns.

96. (Original) The method of claim 88, further comprising selecting the first connection structure to include at least one electrically conductive metallic material.

97. (Original) The method of claim 88, further comprising selecting one of the first elongated members to be shorter than another of the elongated members.

98. (Original) The method of claim 88, further comprising:

temporarily coupling at least one of the first elongated members to a plating bus;
applying electrical current to the plating bus to plate the first connection structure; and
decoupling the first elongated members from the plating bus.

99. (Original) The method of claim 88, further comprising:

attaching a microelectronic substrate to the support member; and
electrically coupling the microelectronic substrate to the second connection structure.

100. (Original) The method of claim 88, further comprising selecting the first connection structure to have two elongated members.

101. (Original) The method of claim 88, further comprising selecting the first connection structure to have three elongated members.

102. (Original) The method of claim 88, further comprising anchoring an end of at least one of the elongated members to the support member.

103. (Original) The method of claim 88, wherein each of the first and second elongated members has an axis along which the member is elongated and wherein the method further includes selecting each elongated member to have an approximately equal width transverse to the axis.

104. (Original) The method of claim 88, further comprising:

attaching a microelectronic substrate to the support surface of the support member; and

connecting the microelectronic substrate to the second connection structure by passing a wire from the microelectronic substrate through an aperture in the support surface and to the second connection structure.

105. (Original) The method of claim 88 wherein disposing the first quantity of flowable conductive material includes forming a first solder ball projecting away from the first bond site by a first distance, and wherein disposing the second quantity of flowable conductive material includes forming a second solder ball projecting away

from the second bond site by a second distance at least approximately equal to the first distance.

106. (Original) A method for coupling a flowable conductive material to a microelectronic device, comprising:

aligning a support member to receive a flowable conductive material, the support member having a support surface configured to carry a microelectronic substrate, the support member further having a first connection structure and a second connection structure, the first connection structure being configured to remain decoupled from a microelectronic substrate when the support member carries the microelectronic substrate, the first connection structure having a first bond site configured to receive the flowable conductive material, the second connection structure having a second bond site configured to receive the flowable conductive material and be electrically coupled to the microelectronic substrate when the support member carries the microelectronic substrate;

disposing a first quantity of the flowable conductive material on the first bond site to form a first conductive coupler;

wicking a first portion of the first quantity of flowable conductive material along first elongated members connected to and extending outwardly from the first bond site such that the first conductive coupler projects away from the first bond site in an at least approximately normal direction by a first distance;

disposing a second quantity of the flowable conductive material on the second bond site to form a second conductive coupler; and

wicking a second portion of the second quantity of flowable conductive material along second elongated members extending outwardly from the second bond site such that the second conductive coupler projects away from the second bond site in an at least approximately normal direction by a second distance at least approximately equal to the first distance.

107. (Original) The method of claim 106 wherein wicking the second portion includes wicking a second portion having a volume at least approximately equal to a volume of the first portion.

108. (Original) The method of claim 106 wherein wicking the first portion includes wicking the first portion along a first number of first elongated members, and wherein wicking the second portion includes wicking the second portion along a second number of second elongated members, with the first number equal to the second number.

109. (Original) The method of claim 106 wherein wicking the first portion of flowable conductive material includes wicking the first portion along two first elongated members extending away from opposite sides of the first bond site.

110. (Original) The method of claim 106, further comprising disposing a layer on the support member and over the first and second elongated members with a first aperture of the layer aligned with the first bond site and a second aperture of the layer aligned with the second bond site, further wherein a covered portion of each first and second elongated member extends between the layer and the support member, and an exposed portion of each elongated member is exposed through one of the first and second apertures, still further wherein each exposed portion has approximately the same length.

111. (Original) The method of claim 106, further comprising:
attaching a microelectronic substrate to the support member; and
electrically coupling the microelectronic substrate to the second connection structure.

112. (Original) A method for supporting a microelectronic substrate, comprising:

attaching the microelectronic substrate to a support member having a connection structure with a bond site configured to receive a flowable conductive material, the connection structure further having at least two elongated members connected to and extending outwardly from the bond site, each elongated member being configured to receive at least a portion of the flowable conductive material from the bond site; and
electrically coupling the microelectronic substrate to the support member without electrically coupling the microelectronic substrate to any of the elongated members of the connection structure.

113. (Original) The method of claim 112 wherein the connection structure is a first connection structure and the elongated members are first elongated members, and wherein electrically coupling the microelectronic substrate to the support member includes electrically coupling the microelectronic substrate to a second connection structure carried by the support member, the second connection structure having a second bond site configured to receive a flowable conductive material, the second connection structure having second elongated members extending outwardly from the second bond site, wherein each of the second elongated members is configured to receive at least a portion of the flowable conductive material from the second bond site.

114. (Original) The method of claim 112 wherein the connection structure is a first connection structure, the bond site is a first bond site and the elongated members are first elongated members configured to receive at least a portion of a flowable conductive material from the first bond site, and wherein the support member includes a second connection structure, the second connection structure having a second bond site configured to receive at least a portion of the flowable conductive material, and wherein the method further comprises:

- disposing a first quantity of the flowable conductive material on the first bond site;
- wicking a first portion of the first quantity of flowable conductive material along the first elongated members;
- disposing a second quantity of the flowable conductive material on the second bond site; and
- wicking a second portion of the second quantity of flowable conductive material along second elongated members extending outwardly from the second bond site, with the second portion of the flowable conductive material having a volume approximately equal to a volume of the first portion.

115. (Original) The method of claim 112 wherein the connection structure is a first connection structure, the bond site is a first bond site and the elongated members are first elongated members configured to receive at least a portion of a flowable conductive material from the first bond site, and wherein the support member includes a second connection structure, the second connection structure having a second bond site configured to receive at least a portion of the flowable conductive material, and wherein the method further comprises:

- disposing a first quantity of the flowable conductive material on the first bond site;
- wicking a first portion of the first quantity of flowable conductive material along the first elongated members;

disposing a second quantity of the flowable conductive material on the second bond site; and

wicking a second portion of the second quantity of flowable conductive material along second elongated members extending outwardly from the second bond site, with the second elongated members being equal in number to the first elongated members.

445.116. (Currently amended) A method for coupling a flowable conductive material to a microelectronic substrate, comprising:

providing a microelectronic substrate having a first surface, a second surface facing opposite from the first surface, and a first bond site positioned at least proximate to the second surface;

disposing a connection structure on the second surface of the microelectronic substrate, the connection structure having a second bond site configured to receive a flowable conductive material, the connection structure further having at least two elongated members connected to and extending outwardly from the second bond site; and

disposing a flowable conductive material on the second bond site to form a conductive coupler at the second bond site.

446.117. (Currently amended) The method of claim 445.116 wherein each elongated member is configured to receive at least a portion of the flowable conductive material from the second bond site, and wherein the method further comprises wicking at least a portion of the flowable conductive material along each elongated member.

447.118. (Currently amended) The method of claim 445.116, further comprising electrically coupling at least one of the elongated members to the first bond site of the microelectronic substrate.

~~418.119.~~ (Currently amended) The method of claim ~~445~~116, further comprising electrically coupling the microelectronic substrate to the connection structure without electrically coupling any of the elongated members extending from the second bond site of the connection structure to any bond sites of the microelectronic substrate.

~~419.120.~~ (Currently amended) The method of claim ~~445–116~~ wherein disposing the connection structure on the microelectronic substrate includes depositing a metal redistribution layer on the microelectronic substrate.

~~420.121.~~ (Currently amended) The method of claim ~~445–116~~ wherein the elongated members each have a first surface and a second surface facing opposite from the first surface, and wherein the method further comprises:

disposing a first passivation layer between the second surface of the microelectronic substrate and the first surfaces of the elongated members; and

disposing a second passivation layer adjacent to the second surfaces of the elongated members.

~~421.122.~~ (Currently amended) A method for supporting a microelectronic substrate, comprising:

attaching the microelectronic substrate to a support member having a first surface and a second surface facing opposite from the first surface, the support member further having a connection structure that includes first and second bond sites, the first bond site being positioned at least proximate to the first surface of the support member, the second bond site being positioned at least proximate to the second surface of the support member, the connection structure further including at least two elongated members connected to and extending outwardly from the first bond site, at

least one of the elongated members being coupled between the first and second bond sites;
electrically coupling the second bond site to the microelectronic substrate; and
disposing a flowable conductive material on the first bond site.

~~422.123.~~ (Currently amended) The method of claim ~~421—122~~ wherein electrically coupling the second bond site to the microelectronic substrate includes connecting a wire bond between the second bond site and the microelectronic substrate.

~~423.124.~~ (Currently amended) The method of claim ~~421—122~~ wherein each elongated member is configured to receive at least a portion of a flowable material from the first bond site, and wherein the method further includes wicking at least a portion of the flowable material along each elongated member.